

respectfully submits that the rejections of Claim 1 under 35 USC § 112, first and second paragraphs, in the Office Action mailed July 18, 2000, are now moot.

In addition, Claim 6 was amended above to remove the negative limitation and to define that the surfactant consists essentially of a fluorine-containing surfactant. Applicant believes that the amended claim 6 renders moot the two rejections of Claim 6 under 35 USC § 112, first paragraph, in the Office Action mailed July 18, 2000. The preferred surfactant is limited in new dependent Claims 7 and 8 to particular fluorine-containing carboxylic acids or their salts, particularly an ammonium salt, as described at page 5, lines 19 to 28 of this specification. Claims 9-11 are added to the application, which are method of use claims. A method of preparing a paint composition, as recited in these claims, is discussed, for example, in applicant's specification disclosure at page 1, lines 8-29, and page 9, lines 6-12. Accordingly, Claims 6-11 are in the application for consideration by the Examiner.

Applicant respectfully submits that Claim 6, as amended above, is a compliance with 35 U.S.C. § 112, first paragraph. The courts established many years ago that 35 U.S.C. § 112, first paragraph, includes a description of the invention requirement and an enablement requirement. *In re Bowen*, 181 USPQ 48 (CCPA 1974); *In re Smith*, 178 USPQ 620 (CCPA 1973); *In re Moore*,

169 USPQ 236 (CCPA 1971). Thus, the first paragraph of 35 U.S.C. § 112 contains separate requirements for --

a description [1] of the invention, and [2] of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art . . . to make and use the same . . . .

In order to comply with 35 U.S.C. §112, first paragraph, all that is required is that the application reasonably conveys to persons skilled in the art that, as of the filing date thereof, the inventor had possession of the subject matter later claimed by him. *In re Lukach*, 169 USPQ 795 (CCPA 1971); *In re Edwards*, 196 USPQ 465 (CCPA 1975). The basic premise is that the test for determining whether the disclosure complies with the description of the invention requirement is whether it would have reasonably conveyed to one of ordinary skill in the art that the inventor invented the later-claimed subject matter. *In re Kaslow*, 217 USPQ 1089, 1096 (Fed. Cir. 1983). The invention claimed does not have to be described *ipsis verbis* (in the identical words) in order to satisfy the description requirement the first paragraph of Section 112. *Martin v. Johnson*, 172 USPQ 391, 395 (CCPA 1972); *Case v. CPC International, Inc.*, 221 USPQ 196, 201 (Fed. Cir.), *cert. denied*, 224 USPQ 736 (1984).

Claim 6 no longer contains negative limitations. Applicant's specification describes that the aqueous dispersion of applicant's invention can consists essentially of a fluorine-containing surfactant, as set forth in Claim 6. For example, applicant's specification at page 3, line 34, through page 4, line 4,

and page 4, lines 7-12, which describe a dispersion using only a fluorine-containing surfactant in the amount of not more than 1% by weight on the basis of water, thereby providing a written description of the invention that corresponds to Claim 6.

Claim 1 was canceled above. For the foregoing reasons, applicant respectfully submits that the remaining claims are supported in the present specification disclosure within the meaning of 35 U.S.C. § 112. Therefore, applicant respectfully request that the Examiner reconsider and withdraw all outstanding rejections under 35 U.S.C. § 112, first paragraph.

Claim 6 was rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,025,709 of Blaise *et al.* (Blaise). A previous Office Action stated that Blaise teaches 0.12 % fluorinated emulsifier and a latex containing 35% solids. Applicant respectfully submits that the teachings of Blaise do not disclose or suggest the invention as set forth in the present claims within the meaning of 35 U.S.C. § 102 or 35 U.S.C. § 103.

Applicant's Claims 6 and 9 only require that a fluorine-containing surfactant is used as a surfactant to prepare an aqueous dispersion having a high solid content (30 to 65% by weight). Applicant's Claims 7, 8, 10 and 11 further limit the surfactant to particular fluorine-containing carboxylic acids or their salts.

The teachings of Blaise are concerned with compositions that contain a nonionic non-fluorine-containing surfactant. These teachings proposed a latex having a concentration of polymer equal to 35%. Since the teachings of Blaise have absolutely no discussion concerning particle size, applicant respectfully that these teachings cannot motivate one of ordinary skill in the art to the particle size of not more than 200 nm, as required in applicant's claims. In fact, applicant respectfully submits that the main deficiency in the teachings of Blaise, as would be understood by any person skilled in this art, is that these teachings cannot inherently or otherwise suggest the presently claimed particle size.

This particle size deficiency in the teachings of Blaise can be explained as follows. Blaise proposes the use of a surfactant in polymerization that is a water-soluble salt of a fluorine-containing sulfonic acid represented by the formula:  $R_f-C_2H_4SO_3H$ . This surfactant proposed by Blaise is not a salt of the fluorine-containing carboxylic acid ( $-COOH$ ) as defined in the applicant's Claims 7, 8, 10 and 11. The dissociation constant of fluorine-containing sulfonic acid, such as in the surfactant proposed by the teaching of Blaise, is not large enough to stabilize a high concentrated polymer dispersion, such as 35%. With this type of a surfactant, a counter anion such as sodium ion or ammonium ion usually is necessary to stabilize the dispersion.

The teachings of Blaise proposed the use of sodium salt of perfluorooctanoic acid in an amount of 0.03%, 0.06% and 0.12% by weight on

the basis of water in EXAMPLES 1, 2 and 3. The use of the sodium salt of perfluorooctanic acid provides polymer particles having a larger particle size compared with ammonium salt of perfluorooctanoic acid as claimed in Claims 8 and 11. Applicant respectfully submits those person skilled in this art would understand that the teachings Blaise will necessarily provide polymer particles having a larger part size than those set forth in the present claims. This is because a surface activity of a surfactant depends on its counter ion, and an ammonium salt has significantly higher surface activity than a sodium salt (such as the surfactant proposed in Blaise) when the remaining chemical structures are same.

The surface activity of the surfactant proposed by Blaise is significantly less than the surface activity of the surfactant set forth in applicant's claims. For this reason, the teachings of Blaise cannot disclose or suggest the aqueous dispersion of vinylidene fluoride polymer having a particle size of not more than 200 nm and having a solid content of 30 to 65% by weight, as required by the present claims.

The particle size deficiency in the teachings of Blaise is supported by the results in the Tusda's DECLARATION dated February 18, 1999, and submitted with applicant's Response filed on February 23, 1999. In the Declaration, examples in accordance with the teachings of Blaise were carried out. However, it was impossible to obtain a satisfactory aqueous dispersion according to the teachings of Blaise, even when perfluorooctanoic acid was

used as the surfactant. This inability to obtain a satisfactory aqueous dispersion in Blaise demonstrates that the surface activity of the surfactants proposed therein is significantly less than that required by the present claims. For such reasons, the surfactant proposed by the teachings of Blaise cannot achieve an aqueous dispersion of vinylidene fluoride polymer having a particle size of not more than 200 nm and having a solid content of 30 to 65%, as required in the present claims. Therefore, the teachings of Blaise cannot contemplate or suggest the presently claimed invention.

Moreover, this particle size deficiency in the teachings of Blaise would be understood by those skilled in the art for other reasons. Namely, since the object to be solved of Blaise is to prepare a thermally stabilized molding product having less coloration, and the obtained polymer is isolated for molding, the stability of the dispersion stability would not be considered by one of ordinary skill in the art. In fact, applicant respectfully submits that the teachings of Blaise teach away from stable aqueous dispersion, such as that presently claimed, because it is desirable in the teachings of Blaise prepare an unstable aqueous dispersion, so that polymer particles are easily separated from dispersion. In other words, the teachings of Blaise do not desire small particles, such as those presently claimed, but desire larger particles that are easier to isolate from the dispersion for molding purposes -- large polymer particles sediment more easily than smaller polymer particles.

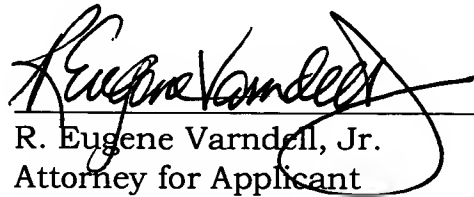
Present Claims 9 to 11 are directed to a method of preparing a paint composition having an excellent dispersion stability by bending a coloring agent with an aqueous dispersion. The teachings of Blaise have no discussion therein concerning the preparation of a paint composition. Accordingly, applicant respectfully submits that Claims 9-11 are distinguishable from the teachings of Blaise.

For the foregoing reasons, applicant respectfully submits that the presently claimed invention is distinguishable from the teachings of Blaise. Therefore, applicant respectfully requests the Examiner reconsider and withdraw this rejection.

While it is believed that the application is in condition for allowance, should the Examiner have any comments or questions, it is respectfully requested that the undersigned be telephoned at the below listed number to resolve any outstanding issues.

In the event this paper is not timely filed, applicant hereby petitions for an appropriate extension of time. The fee therefor, as well as any other fees which may become due, may be charged to our Deposit Account No. 22-0256.

Respectfully submitted,  
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